

Remarks

Upon entry of the foregoing amendments, claims 1, 2, 5-11, 13-15, 17-28, 31-33, 66 and 69-82 are pending in the application, with claims 1, 2, 23 and 66 being the independent claims. Claims 16 and 30 have been canceled. Claims 1, 2, 17, 20, 23, 31, 66 and 73-80 are sought to be amended, and new claims 81 and 82 are sought to be added. Support for the claim amendments may be found throughout the specification. Specifically, support for the amendments to claims 1, 2, 23 and 66 can be found at page 25, lines 12-18; and at page 30, line 26 through page 34, line 4. Support for the amendments to claims 73-80, and for new claims 81 and 82, can be found throughout the specification, specifically at page 25, lines 13-16. The amendments to claims 17 and 20 are sought to revise the dependency of these claims upon cancellation of claim 16. The amendment to claim 31 is sought to revise the dependency of this claim upon cancellation of claim 30. No new matter is added by way of these amendments, and their entry and consideration are respectfully requested.

Applicants respectfully request that the Examiner reconsider all outstanding rejections and that they be withdrawn.

Claim Rejections Under 35 U.S.C. § 112, First Paragraph

Claims 1-2, 5-11, 13-15, 19, 21-28, 30-33, 66 and 69-80 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Specifically, the Examiner contends that the specification only describes how to make mutated thermostable DNA polymerase O-helix mutants. Applicants respectfully disagree with this contention. However, solely to expedite prosecution of the application, and not in acquiescence

to this rejection, present claims 1, 2, 23 and 66 recite that the thermostable DNA polymerases comprise one or more mutations or modifications in the O-helix.

The Examiner also alleges that the newly added phrase “about 0% to about 30%” lacks written description. Applicants respectfully disagree. However, solely to expedite prosecution, and not in acquiescence to this rejection, present claims 1, 2, 23 and 66 recite that “less than about 50% of said amplified DNA fragments have one or more non-templated 3’ nucleotides compared to amplification products produced by *Taq* DNA polymerase assayed under the same conditions.” As acknowledged by the Examiner, this language is fully supported by the present specification at page 25. *See* Office Action, page 3. Present claims 69-80 recite that less than about 20%, 10%, 5% or 1% of the amplified DNA fragments have one or more non-templated 3’ nucleotides. Applicants respectfully submit that this language is also fully supported by the present specification at page 25, lines 14-16.

Therefore, in view of the foregoing remarks, Applicants respectfully request reconsideration and withdrawal of the rejections under 35 U.S.C. § 112, first paragraph.

Claim Rejections Under 35 U.S.C. § 112, Second Paragraph

Claims 1-2, 5-11, 13-28, 30-33, 66 and 69-80 were rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Specifically, the phrase “about 0%” was characterized as indefinite. Applicants respectfully disagree with this characterization. However, in an earnest effort to advance prosecution of the application, the present claims no longer recite the language characterized as indefinite.

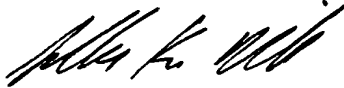
In view of the foregoing remarks, Applicants respectfully request that the rejections under 35 U.S.C. § 112, second paragraph, be reconsidered and withdrawn.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or otherwise rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw the all presently outstanding rejections. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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